3.0 EXISTING CONDITIONS

Marine mammal stocks are subjected to anthropogenic threats including fishery operations, ship strikes, pollution, and noise. Because the ZMRG applies only to US commercial fisheries that incidentally take marine mammals, this chapter has two main sections: the status of protected marine populations and a description of active US commercial fisheries.

3.1 Status of Protected Marine Populations

The following sections discuss the status of marine populations that are protected by the MMPA and/or the ESA.

3.1.1 Marine Mammals

The final 2002 SARs (NMFS, 2002a, 2002b, and 2002c) and the draft 2003 SARs (NMFS, 2003c) discuss comprehensively the status of marine mammal populations in US waters. The 2003 SARs are currently being finalized and are expected to be available to the public sometime in spring 2004. The information presented in the final 2002 SARs, draft 2003 SARs (NMFS, 2003c), and *Environmental Assessment of Proposed Regulations to Govern Interactions between Marine Mammals and Commercial Fishing Operations, under Section 118 of the Marine Mammal Protection Act* (NMFS, 1995a) are incorporated here by reference.

Depleted and ESA-listed Stocks

Table 3-1 lists all domestic depleted, threatened, and endangered marine mammal stocks as well as stocks that are candidates for ESA listing.

Recovery plans exist for the blue whale (NMFS, 1998a), the Hawaiian monk seal (NMFS, 1983), the humpback whale (NMFS, 1991a), the Northern right whale (NMFS, 1991b), and the Steller sea lion (NMFS, 1992). The recovery plans contain more current information on each species and are incorporated by reference.

Also, as required by the MMPA, a Conservation Plan exists for the North Pacific fur seal (NMFS, 1993) and is incorporated by reference.

Table 3-1
Domestic Depleted and ESA-listed or –Candidate Marine Mammal Stocks

Common Name	Scientific Name	Status*
Blue Whale	*Balaenoptera musculus*	E
Bowhead Whale	*Balaena mysticetus*	E, D
Caribbean Monk Seal	*Monachus tropicalis*	E
Coastal Spotted Dolphin	*Stenella attenuata graffmani*	D
Cook Inlet Beluga Whale	*Delphinapterus leucas*	D, C
Eastern Spinner Dolphin	*Stenella longirostris orientalis*	D
Fin Whale	*Balaenoptera physalus*	E
Guadalupe Fur Seal	*Arctocephalus townsendi*	T
Hawaiian Monk Seal	*Monachus schauinslandi*	E, D
Humpback Whale	*Megaptera novaeangliae*	E
Bottlenose Dolphin (US mid-Atlantic coastal migratory stock)	*Tursiops truncatus*	D
Killer Whale (Eastern North Pacific Southern Resident stock)	*Orcinus orca*	D
North Atlantic Right Whale	*Balaena glacialus*	E
North Pacific Fur Seal	*Callorhinus ursinus*	D
Northeastern Offshore Spotted Dolphin	*Stenella attenuata*	D
Northern Sea Otter	*Enhydra lutris kenyoni*	C
Sei Whale	*Balaenoptera borealis*	E
Southern Sea Otter**	*Enhydra lutris nereis*	T
Sperm Whale	*Physeter macrocephalus*	E
Steller Sea Lion	*Eumetopias jubatus*	E, T
West Indian Manatee	*Trichechus manatus*	E

* E = endangered; T = threatened; C = candidate; D = depleted.
** The southern sea otter, also called the California sea otter, is exempt from MMPA Section 118.
Sources: NMFS, 2004c; USFWS, 2004.

3.1.2 Sea Turtles

All six sea turtles that occur in US waters are listed under the ESA (see Table 3-2) and have recovery plans, all of which were finalized between 1991 and 1998. Being caught incidentally in fishing gear is an unquantified, ongoing problem for sea turtles. Use of turtle excluder devices is required to help reduce sea turtle bycatch in some commercial fisheries. Habitat loss, egg poaching, marine debris, beach nourishment, and artificial lighting are also common threats to sea turtles.

Table 3-2
Sea Turtles that Occur in US Waters

Common Name	Scientific Name	Status*
Green Turtle	*Chelonia mydas*	E, T**
Hawksbill Turtle	*Eretmochelys imbricata*	E
Kemp's Ridley Turtle	*Lepidochelys kempi*	E
Leatherback Turtle	*Dermochelys coriacea*	E
Loggerhead Turtle	*Caretta caretta*	T
Olive Ridley Turtle	*L. olivacea*	E, T**

* E = endangered; T = threatened.
** Status assigned according to population.
Source: NMFS, 2004a.

3.1.2.1 Green Turtle

The green turtle is a circumglobal species found in tropical and subtropical waters. Posthatchling and small juvenile green turtles reside in oceanic waters. Adults are predominantly tropical and spend most of their time in shallow, nearshore areas. However, they are known to undertake long oceanic migrations between nesting and foraging habitats.

All green turtle populations are threatened except the breeding populations off Florida and the Pacific coast of Mexico, which are endangered. Since the 1978 listing, the populations have not improved significantly (NMFS, 2004a). The green turtle recovery plans contain more current information and are incorporated by reference (NMFS and USFWS, 1991a, 1998a, and 1998b).

3.1.2.2 Hawksbill Turtle

Hawksbill sea turtles are found in tropical and subtropical seas of the Atlantic, Pacific, and Indian Oceans. They are found along the continental US coastline from Massachusetts southward, including all of the Gulf of Mexico coastal states; however, sightings north of Florida are rare. Like the green turtle, posthatchling hawksbills are pelagic, and adults return to a variety of shallow coastal habitats including rocky outcrops, coral reefs, lagoons on oceanic islands, and estuaries.

The hawksbill has been endangered since its 1970 listing (NMFS, 2004a). The hawksbill turtle recovery plans contain more current information and are incorporated by reference (NMFS and USFWS, 1993 and 1998c).

3.1.2.3 Kemp's Ridley Turtle

The Kemp's ridley turtle does not have as widespread a distribution as other sea turtles. Adults are generally restricted to the coastal areas of Gulf of Mexico and the northwestern Atlantic Ocean. Nesting occurs primarily on a single beach near Rancho

Nuevo in southern Tamaulipas, which is on the northeastern coast of Mexico. There are a few additional nests in Texas, Florida, South Carolina, and North Carolina.

The Kemp's ridley turtle has been endangered since its listing in 1970. After long periods of decline, today the population appears to be in the early stages of recovery due to protective measures (NMFS, 2004a). The Kemp's ridley turtle recovery plan contains more current information and is incorporated by reference (NMFS and USFWS, 1992b).

3.1.2.4 Leatherback Turtle

The leatherback is the largest living turtle (NMFS, 2004a). Leatherback turtles are distributed worldwide in tropical and temperate waters of the Atlantic, Pacific, and Indian Oceans. Adult leatherbacks are highly migratory and are believed to be the most pelagic of all sea turtles. Females are often observed near the edge of the continental shelf but do not nest frequently in the US.

Leatherbacks were listed as endangered in 1970. The leatherback turtle recovery plans contain more current information and are incorporated by reference (NMFS and USFWS, 1992a and 1998d).

3.1.2.5 Loggerhead Turtle

Loggerhead sea turtles are found in tropical, subtropical, and temperate waters throughout the world. The loggerhead is the most abundant sea turtle in US coastal waters. They frequent continental shelves, bays, estuaries, and lagoons.

Loggerheads were listed as threatened in 1978, and their status has not changed. It appears that the nesting populations in South Carolina and Georgia may be declining while the Florida nesting population seems to be stable. However, NMFS is currently considering the reclassification of the Northern and Florida panhandle subpopulations as endangered (NMFS, 2004a). The loggerhead turtle recovery plans contain more current information and are incorporated by reference (NMFS and USFWS, 1991b and 1998e).

3.1.2.6 Olive Ridley Turtle

Olive ridley turtles are predominantly tropical and are more abundant in the Atlantic Ocean than in the Pacific Ocean. The olive ridley turtles form huge nesting aggregations (often known as "arribadas") at several beaches along the Mexican Pacific coast with the largest concentration at La Escobilla (NMFS, 2004a). In the non-reproductive stages, olive ridleys are migratory and tend to remain in the eastern Pacific pelagic habitats. Distribution is similar to that of the leatherbacks.

In 1978 the olive ridley turtle was listed as endangered for the Mexican nesting population and as threatened for all other populations. Since the listing, abundance has declined, and it has been recommended that the Western Atlantic population be reclassified as endangered (NMFS, 2004a). The olive ridley turtle recovery plan contains

more current information on each species and is incorporated by reference (NMFS and USFWS, 1998f).

3.1.3 Sea Birds

Sea birds' normal habitat and food source are the sea, whether they utilize coastal waters, offshore waters, or pelagic waters (Harrison, 1983). Birds of this definition include loons (Gaviiformes), grebes (Podicipediformes), albatrosses, fulmars, prions, petrels, shearwaters, storm-petrels, diving petrels (Procellariiformes), pelicans, boobies, gannets, cormorants, shags, frigatebirds, tropicbirds, anhingas (Pelecaniformes), shorebirds, skuas, jaegers, gulls, terns, auks, and puffins (Charadriiformes).

Table 3-3 lists the sea birds that are listed under the ESA. The *Environmental Assessment of Proposed Regulations to Govern Interactions between Marine Mammals and Commercial Fishing Operations, under Section 118 of the Marine Mammal Protection Act* (NMFS, 1995a) contains much data on sea birds, which are incorporated by reference.

Table 3-3
ESA-listed Sea Birds

Common Name	Scientific Name	Status*
Brown Pelican	*Pelecanus occidentalis*	E, R**
California Least Tern	*Sterna antillarum browni*	E
Hawaiian Dark-rumped Petrel	*Pterodroma phaeopygia sandwichensis*	E
Hawaiian Stilt	*Himantopus mexicanus knudseni*	E
Least Tern	*Sterna antillarum*	E
Newell's Townsend's Shearwater	*Puffinus auricularis newelli*	T
Roseate Tern	*Sterna dougallii dougallii*	E, T**
Short-tailed Albatross	*Phoebastria albatrus*	E

* E = endangered; T = threatened; C = candidate; R = recovered (delisted).
** Status assigned according to population.
Sources: USFWS, 2004.

3.1.4 Anadromous and Marine Fishes

Table 3-4 shows all anadromous and marine fishes that are endangered species, threatened species, or candidate species for listing under the ESA. No catadromous fishes are listed or candidates for listing under the ESA.

Recovery plans exist for the shortnose and Gulf sturgeons and are incorporated by reference (NMFS 1998b; USFWS and Gulf States Marine Fisheries Commission, 1995).

Table 3-4
Endangered, Threatened, and Candidate Anadromous and Marine Fishes

Common Name	Scientific Name	Status*
Alabama Shad	*Alosa alabamae*	C
Atlantic Salmon	*Salmo salar*	E
Atlantic Sturgeon	*Acipenser oxyrinchus oxyrinchus*	C
Barndoor Skate	*Raja laevis*	C
Bocaccio	*Sebastes paucispinis*	C
Chinook Salmon	*Oncorhynchus tshawytscha*	E, T, C**
Chum Salmon	*Oncorhynchus keta*	T
Coho Salmon	*Oncorhynchus kisutch*	T, C**
Dusky Shark	*Carcharhinus obscurus*	C
Goliath Grouper	*Epinephelus itajara*	C
Green Sturgeon	*Acipenser medirostris*	C
Gulf Sturgeon	*Acipenser oxyrinchus desotoi*	T
Key Silverside	*Menidia conchorum*	C
Largetooth Sawfish	*Pristis perotteti*	C
Mangrove Rivulus	*Rivulus marmoratus*	C
Nassau Grouper	*Epinephelus striatus*	C
Night Shark	*Carcharhinus signatus*	C
Opossum Pipefish	*Microphis brachyurus*	C
Saltmarsh Topminnow	*Fundulus jenkinsi*	C
Sandtiger Shark	*Odontaspis Taurus*	C
Shortnose Sturgeon	*Acipenser brevirostrum*	E
Smalltooth Sawfish	*Pristis pectinata*	E
Sockeye Salmon	*Oncorhynchus nerka*	E, T, C**
Speckled Hind	*Epinephelus drummondhayi*	C
Steelhead Trout	*Oncorhynchus mykiss*	E, T, C**
Warsaw Grouper	*Epinephelus nigritus*	C
White Marlin	*Tetrapturus albidus*	C

* E = endangered; T = threatened; C = candidate.
** Status assigned according to population.
Sources: NMFS, 2004b.

3.2 Description of Active US Commercial Fisheries

The *Environmental Assessment of Proposed Regulations to Govern Interactions between Marine Mammals and Commercial Fishing Operations, under Section 118 of the Marine Mammal Protection Act* (NMFS, 1995a) provides substantial information on US commercial fisheries so the information in that EA is incorporated by reference. The draft 2003 SARs (NMFS, 2003c) and the 2003 LOF (NMFS, 2003b) include more recent data and are also incorporated by reference.

According to the 2003 LOF, of the 197 active US commercial fisheries, there are six fisheries in Category I, 34 in Category II, and 157 in Category III (see Table 3-5).

Table 3-5
Classified Active US Commercial Fisheries

Region	Category I	Category II	Category III
Atlantic	5	14	51
Pacific/Alaska*	1	20	106
Total	**6**	**34**	**157**

* While the SARs separate fisheries into Pacific and Alaska regions, the LOF combines the two regions. Therefore, Pacific and Alaska fisheries are combined in this table.
Source: NMFS, 2003b.

Chapter 4 analyzes only those fisheries that exceed the T_{ins} as calculated under each alternative; the estimated incidental mortality and serious injury data from the above-referenced reports for such fisheries appear in Chapter 4 along with the analysis.

3.3 TRTs and TRPs

To date, only the Atlantic Offshore Cetacean TRT has been convened and was later disbanded. It was formed to address take reduction of North Atlantic right whales, humpback whales, sperm whales, beaked whales, pilot whales, common dolphins, bottlenose dolphins, and spotted dolphins in the Atlantic pelagic driftnet, pair trawl, and pelagic longline fisheries. Since the TRT was convened in 1996, the driftnet fishery was closed, the pair trawl fishery remained inactive, and the longline fishery changed substantially to reduce other bycatch. Therefore, NMFS disbanded the TRT in 2001.

NMFS has formed five currently-operating TRTs: Pacific Offshore Cetacean TRT, Mid-Atlantic Harbor Porpoise TRT, Gulf of Maine Harbor Porpoise TRT, Atlantic Large Whale TRT, and Bottlenose Dolphin TRT. NMFS has implemented TRPs for each TRT except the Bottlenose Dolphin TRT; the agency is currently drafting a proposed rule to implement a Bottlenose Dolphin TRP.

NMFS also has plans to convene a TRT in 2005 to address incidental mortality and serious injury of marine mammals in the Atlantic pelagic longline fishery (primarily focusing on common dolphins and pilot whales) and has plans to convene a TRT in 2006 to address incidental mortality and serious injury of marine mammals in the Atlantic trawl fisheries. Both future TRTS are also part of the April 2003 settlement agreement (*Center for Biological Diversity, et al v. National Marine Fisheries Service*, Case No. C-02-3901-SC (N.D. Cal. 2003)).

3.3.1 Pacific Offshore Cetacean TRT

The Pacific Offshore Cetacean TRT was formed in February 1996 to reduce incidental mortality and serious injury of beaked whales, pilot whales, pygmy sperm whales, sperm whales, and humpback whales in the swordfish/shark drift gillnet fishery off the coasts of California and Oregon. The TRP was implemented on October 30, 1997. The plan has

three main requirements: pingers must be on all nets, nets must be set at a minimum of 36 feet below the water's surface, and vessel operators must attend educational workshops after notification from NMFS. A modification made on January 1, 1999 requires longer attachment lanyards to increase safety of pinger deployment. (NMFS, March 2004e)

3.3.2 Mid-Atlantic Harbor Porpoise TRT

The Mid-Atlantic Harbor Porpoise TRT, first convened in February 1997, addresses incidental mortality and serious injury of harbor porpoise in the mid-Atlantic coastal gillnet fishery. In December 1997, based on new bycatch and fishery data, NMFS integrated the Mid-Atlantic Harbor Porpoise TRT report and the Gulf of Maine Harbor Porpoise TRT report, resulting in one harbor porpoise TRP for the Atlantic coast. NMFS implemented the harbor porpoise TRP on January 1, 1999. The TRP consists of time and area closures unless gear meets certain specifications, some complete time and area closures that apply to any gillnet fishing, and required pingers on sink gillnets in certain times and areas. (NMFS, March 2004e)

3.3.3 Gulf of Maine Harbor Porpoise TRT

The Gulf of Maine Harbor Porpoise TRT first met in February 1996 to address incidental mortality and serious injury of the harbor porpoise in the Northeast sink gillnet fishery. In December 1997, based on new bycatch and fishery data, NMFS integrated the Mid-Atlantic Harbor Porpoise TRT report and the Gulf of Maine Harbor Porpoise TRT report, resulting in one harbor porpoise TRP for the Atlantic coast. NMFS implemented the harbor porpoise TRP on January 1, 1999. The TRP consists of time and area closures unless gear meets certain specifications, some complete time and area closures that apply to any gillnet fishing, and required pingers on sink gillnets in certain times and areas. (NMFS, March 2004e)

3.3.4 Atlantic Large Whale TRT

The Atlantic Large Whale TRT was established in August 1996 to design a TRP for North Atlantic right whales, humpback whales, and fin whales affected by the Southeastern US shark gillnet fishery, the Northeast/Mid-Atlantic lobster trap/pot fishery, the Mid-Atlantic coastal gillnet fishery, and the Northeast sink gillnet fishery. The TRP was first put into effect in 1997 and has been modified several times, most recently in August 2003. The TRP includes gear restrictions, research recommendations, time and area closures, outreach and education recommendations, and a disentanglement program. The TRT most recently met in February 2004. Currently, NMFS is preparing a draft environmental impact statement to analyze alternatives for gear modification and improved time and area management. (NMFS, 2004d)

3.3.5 Bottlenose Dolphin TRT

The Bottlenose Dolphin TRT was convened in November 2001 to address incidental mortality and serious injury of Western North Atlantic coastal bottlenose dolphins in the Mid-Atlantic and Southeast gillnet, beach seine, stop net, haul seine, and trap/pot fisheries. Most recently, the TRT met in April 2003 and submitted recommendations, on which NMFS is currently basing preparation of a proposed rule. The recommendations include temporal restrictions, proximity and gear-marking requirements, net length restrictions, and gear workshops. (NMFS, March 2004e)